

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims, including their status identifier, is set forth below.

1-131 (Canceled)

132. (Currently amended) A method **of identifying a compound as having cardioprotective activity** comprising:

- (a) contacting a candidate compound with a G protein-coupled receptor (**GPCR**) comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3, wherein said GPCR is present on a cell or isolated membrane thereof;
- (b) determining ~~the ability of~~ **whether said** the compound **stimulates the GPCR** to modulate the G protein-coupled receptor; and
- (c) **identifying a compound as having an activity that stimulates said GPCR;**
- (d) ~~(e)~~ determining **whether** if-said compound **of step (c)** has cardioprotective activity **by:**
 - (i) **administering said compound of step (c) to a mammal; and**
 - (ii) **determining whether said compound of step (c) modulates cardiac function in the mammal; or**
 - (iii) **contacting said compound of step (c) with a cardiomyocyte cell *in vitro*; and**
 - (iv) **determining whether said compound modulates survival of said cardiomyocyte cell; and**
- (e) **identifying a compound as having cardioprotective activity.**

133. (Previously presented) The method of claim 132, wherein said cell is a mammalian cell, a yeast cell or a melanophore cell.

134. (Previously presented) The method of claim 132, wherein said G protein-coupled receptor is constitutively active.

135. (Previously presented) The method of claim 132, wherein said G protein-coupled receptor comprises the amino acid sequence of an endogenous receptor comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:5.

136. (Currently amended) The method of claim 132, wherein **step (b) of** the method comprises detecting a second messenger.

137. (Previously presented) The method of claim 136, wherein the second messenger is cAMP or IP₃.

138. (Currently amended) The method of claim 132, wherein **step (b) of** the method comprises measuring pigment distribution in melanophore assay.

139. (Currently amended) The method of claim 132, wherein **step (b) of** the method comprises measuring GTPγS binding to membrane.

140. (Cancelled)

141. (Currently amended) The method of claim **132** ~~140~~, wherein the method comprises measuring apoptosis of the cardiomyocyte cell.

142. (Cancelled)

143. (Currently amended) The method of claim **132** ~~142~~, wherein the mammal is a rat or mouse model of heart disease.

144. (Currently amended) The method of claim **132** ~~142~~, wherein **step (d)(ii) of said method** ~~element (ii)~~ comprises evaluating a cardiovascular disorder, an ischemic heart disease, or a cardiovascular function in said mammal.

145. (Currently amended) The method of claim 132, wherein **step (d)(ii) of said method comprises evaluating said mammal** ~~the candidate compounds are screened as pharmaceutical agents for congestive heart failure.~~

146. (Currently amended) The method of claim **132** 145, wherein **the compound of step (c)** ~~the screen is for~~ is for an agonist of the GPCR.

147. (Previously presented) The method of claim 146, wherein the agonist is a partial agonist.

148. (Withdrawn) A method comprising:

- (a) administering a candidate compound to a non-human mammal having a genome comprising an inactivated mammalian RUP41 gene; and
- (b) determining if said compound provides cardioprotection.

149. (Withdrawn) The method of claim 148, wherein the non-human mammal is a rat, a mouse or a pig.

150. (Withdrawn) A cultured cardiomyocyte cell comprising a recombinant nucleic acid encoding a G protein-coupled receptor comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3.

151. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective expression of a G protein-coupled receptor comprising an amino acid sequence having at least 90% identity to SEQ ID NO:3 in cardiomyocytes.

152. (Withdrawn) A non-human mammal having a genome that is modified to provide for selective inactivation of a mammalian RUP41 gene in cardiomyocytes.

153. (New) The method of claim 132, wherein said GPCR comprises an amino acid sequence having at least 95% identity to SEQ ID NO:3.